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09/898,675	07/03/2001	Selim Shlomo Rakib	034704-000040	4348

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EXAMINER

SHANG, ANNAN Q

ART UNIT	PAPER NUMBER
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2623

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/898,675

Applicant(s)

RAKIB SELIM

Examiner

Annan Q. Shang

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 10, 11 and 13 are objected to because of the following informalities: Page 11 of 12, lines 20-23 of Applicant's Remarks indicates claims 10, 11 and 13 as canceled claims, however, the status indicators of claims 10, 11 and 13 shows "Original" "Previously presented" and "Original" respectively. Appropriate correction is required. Examiner will treat these claims as canceled claims.

### *Response to Arguments*

2. Applicant's arguments filed 03/20/07 have been fully considered but they are not persuasive.

With respect to claims 15 and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by **Ellis et al (2005/0028208)** and claims 1-17 rejected under 35 U.S.C. 103(a) as being unpatentable over **McKenna et al (2003/0005449)**, claims 1-4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ellis et al (2005/0028208)** in view of **Yamamoto (6,169,845)**, claims 7-9, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ellis et al (2005/0028208)** in view of **Isono et al (6,216,171)** and the various 103(a) rejection of the last office action, Applicant cancels claims 10, 11, 13 and 15-20, cites MPEP and further argues that Examiner "...no motivation to combine the teachings of these references...in impermissible hindsight..."(see page labeled 10 of 12+ of Applicant's Remarks).

In response, Examiner disagrees. Examiner notes Applicant's arguments, however, Examiner maintains that, the test for obviousness is not whether the features

of a secondary reference may be bodily incorporate into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In this case **Ellis** (figures 1-7), discloses client/server based interactive television program guide system with remote access and further discloses a gateway (UserTVE 22, Set top box 'STB' 28) that implements TIVO-like functions comprising: A switching circuit having a plurality of input and output (I/O) ports and the various claimed limitations as discussed below in the office action. Ellis is silent to where the switching circuitry is a crossbar switching or router circuit having a plurality of input and output (I/O) ports. However, this deficiency is disclosed in **Yamamoto** (figures 4-7), where Yamamoto discloses moving-image data recording/reproducing apparatus for simultaneously recording/reproducing a plurality of moving image by using a plurality of moving-image I/O passages coupled to a crossbar switch (col.3, line 47-col.4, line 35 and line 36+), as such combining the teaching of **Yamamoto** with **Ellis** would be within the knowledge of one of ordinary skill in the art. All the 103(a) rejections are all in the same field of endeavor (a gateway for receiving and processing data) and appropriate motivations were given. Furthermore one of ordinary skill in the art would have been motivated to combine the various teachings of the prior arts of record.

Furthermore it appears Applicant's arguments are directed against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. **See *In re***

**Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).** Hence the 103(a) rejection is proper, meets all the claim limitations, maintained as repeated below. **This office action is made final.**

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ellis et al (2005/0028208)** in view of **Yamamoto (6,169,845)**.

As to claim 1, note the **Ellis** reference figures 1-7, discloses client server based interactive television program guide system with remote access and further discloses a gateway (User Television Equipment 'UserTVE' 22, Set top box 'STB' 28 or Interactive Program Guide Television Equipment 'IPGTVE' 17, figs.1-6) that implements TIVO-like functions comprising:

A switching circuit having a plurality of input and output (I/O) ports and capable of routing multiple sets of data at substantially same time (Tuner/Communication Circuitry 'Tuner/CC' of STB-28 or Satellite Receiver, figs.2d-4 and page 4, [0070-0077] and [0082-0086]);

A digital TV satellite receiver capable of receiving data from a satellite dish and coupled to I/O port of the switching circuit (page 4, [0066-0068] and [0094]);

An infrared or radio frequency receiver circuitry (infrared receiver of STB-28) for receiving commands and data from a remote (Remote Access Device or Remote Control 'RAD' 24) and coupled to I/O port of the switching circuit, where the commands and data from the remote control provide instructions to the digital TV Satellite receiver and a computer (figs.5-7, page 4, [0070-0077], [0092-0097]);

A modem or transceiver (Communication Device 'CD' 37/51) coupled to I/O port of the switching circuit and capable of accessing data from the Internet (page 7, [0095-0101]);

Cable modem or transceiver means (CD 37/51) coupled to I/O port of the switching circuit;

A network interface circuit or bus (CD 37/51) couple to the switching circuit as well as to a port for connection to a local area network or external bus (page 6, [0081-0088]), note that STB-28 CD-37/51 is a network interface device to LAN devices, such as: RAD-24, Secondary Storage device 47, digital storage device 49, DVD, digital VCR, PC, etc.;

A rating shaping circuitry or bus driver (Control Circuitry/Processing Circuitry 'CC/ProC' 42 of STB-28) which is coupled to I/O port of the switching circuit for altering the bandwidth of the data routed through the rate shaping circuitry (page 6, [0082-0090], [0093-0096]), note that STB-28 receives low and high frequency signals, from satellite, Internet link, serial or parallel link, network link, and other wired or wireless digital or analog link and alters the bandwidth of data routed through the devices on the

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LAN and STB-28 CC/ProC-42 exchanges data at high data rate between STB-28 and MF-12 or DF-16 to meet user interactive requests, on-demand;

A decompression and conversion circuit or one or more processing means (ProC or Display Circuitry 'DC' of STB 28) having a digital data input (see figs.3-5) coupled to I/O port of the switching circuit (Tuner/CC) and having video and audio analog signal output ports and functioning to decompress digital video and audio data supplied by the switching circuit (Tuner/CC) and convert the decompressed digital video and audio data into analog video signals and audio signals at the video and audio analog output ports and to receive uncompressed data from the modem or the receiver and convert it to video and/or audio analog signals at the video and audio analog output ports respectively ((page 6, [0082-0090], [0093-0096]), [0102-0112], [0115-0119], [0120-0122], [0127-0139], [0162-0168] and 0186]+), note that ProC of UTVE-22 or STB-28 receives digital compressed MPEG-2 data stream transmitted from Main facility (MF) 12 or Distribution Facility (DF) 16 and UserTVE or STB-28, demultiplexes, decodes, encodes, conditional access, decryption, decompresses and converts (CC/ProC within STB-28) the received data to analog NTSC for display of NTSC-TV 36/54, furthermore UserTVE-22 or STB-28 receives IP data (which includes guide data, program data, etc.,) via communication path 19/20;

A hard disk (Hard Disk 'HD' 31, 32, 49, 63, etc.,) coupled to the switching circuit (Tuner/CC) and capable of storing compressed digital video and audio data from the digital TV satellite receiver via the switching in response to a command and data from the remote control, RAD-24 (page 6, [0081-0091], [0127-0128] and [0163-0164]);

A computer (CC-42 or ProC of STB-28) coupled to I/O ports of the switching circuit (Tuner/CC) and configured to control switching circuit (note that Tuner/CC upon user's request records/playback programs to/from the recording mediums), the digital TV satellite receiver, the infrared or radio frequency receiver circuit, the modem or the decompression and conversion circuit in response to the commands and data from the remote control (page 6, [0081-0091], [0115-0119], [0127-0139], [0162-0168] and 0186+), note that the CC-42 or ProC is configured to download program guide data ([0201]) via the modem and to perform on of timed recording, simultaneously recording and automatic recording functions in response to commands from the wireless RAD and/or to control the switching circuit to supply IP or MPEG format packet data from the cable modem to the network interface circuit or bus driver for output to one or more peripherals or to the decompression and conversion circuit for conversion to analog video and/or analog signals at the video and audio output port for display on a conventional television, and programmed to control the switch to route selected data through the shaping circuitry and to control the rating shaping circuitry to alter the bandwidth of data routed through.

Ellis fails to explicitly teach a crossbar switching or router circuit having a plurality of input and output (I/O) ports.

However, note the **Yamamoto** reference figures 4-7, discloses moving-image data recording/reproducing apparatus for simultaneously recording/reproducing a plurality of moving image by using a plurality of moving-image I/O passages coupled to a crossbar switch (col.3, line 47-col.4, line 35 and line 36+).



Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Yamamoto into the system of Ellis in order to speed up the flow of information.

As to claim 2, Ellis further discloses where the gateway includes an MP3 server, for recording music, coupled to CC/ProC-42 of STB-28 and controlled by the computer to supply MP3 data to the network interface circuit or bus transceiver for output to LAN Devices coupled to the gateway via a LAN or external bus (page 3, [0060] and page 5, [0075]).

As to claim 3, the claimed "a gateway that implements TIVO-like functions..." is composed of the same structural element that were discussed in the rejection of claim 1 above.

As to claim 4, the claimed "a gateway that implements TIVO-like functions..." is composed of the same structural element that were discussed in the rejection of claim 1 above.

5. Claims 7-9, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ellis et al (2005/0028208)** in view of **Isono et al (6,216,171)**.

As to claims 7-8, Ellis teaches all the claimed limitations as previously discussed with respect to claim 1 above, including processes IP packets, but fails to explicitly teach encapsulating the video and Internet Data from headend and a DHCP server means coupled to the router for assigning IP addresses to client processes in the peripherals and the gateway and receiving data packets addressed to the headend and

routing the packets to the headend via using the processing means and the transceiver means

However, note **Isono** reference discloses a Cable Modem Gateway 9 for receiving data and routing data accordingly to LAN devices, includes DHCP Server for assigning IP addresses to devices on the LAN and further encapsulating video and Internet data from the headend and permits devices on the LAN to communicate directly to the headend (figs. 1, 2 and col. 3, lines 9-56).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Isono into the system of Ellis to include a DHCP Server in a receiver to assign IP addresses and permit the headend or the service provider to communicate directly with devices on the LAN and route data to the LAN devices accordingly and further enable to LAN devices to communicate with each other.

As to claim 9, Ellis further disclose receiving an e-mail at the STB-28 and displaying at TV-36 where the user can interact to transmit messages via the STB-28 to the service provider (page 6, [0095-0101], [0106-119], [0180] and [0228]).

As to claim 12, Ellis further discloses where the computer is further programmed with HTTP web server for controlling the computer to serve web pages to browsers browsing the Internet via the packet switch/router and an interface means for interfacing to the Internet to provide an always-on connection to the Internet ((page 6, [0095-0101], [0106-119], [0180] and [0228]).

As to claim 14, Ellis further discloses a display (TV-36/45) coupled to a display adapter (display circuitry) which is coupled to the packet switch/router (Tuner/CC) and further comprising a input device coupled to an interface circuit which is coupled to the packet switch/router the input device and display for controlling the gateway by issuing commands to the computer and displaying user interface data and/or command and/or program icons on display, and where the packet switch/router (page 6, , [0081-0091], [0095-0101], [0106-119], [0127-0128] and [0163-0164 and [0180])).

Ellis fails to explicitly teach where the LAN interface cards cooperate to allow any peripheral coupled to the LAN to any local area network interface card to communicate with any other peripheral coupled by a LAN to different LAN interface through the packet switch/router, however Ison teaches the claimed limitations as discussed with respect claim 7.

6. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ellis et al (2005/0028208)** in view of **Yamamoto (6,169,845)**, and further in view of **Billerbeck et al (6,844,895)**

As to claim 5, Ellis as modified by Yamamoto, teach all the claimed limitations as previously discussed with respect to claim 1 above, but fail to explicitly teach altering the bandwidth of data routed through to match the available bandwidth of whatever data on which the data is to be transmitted.

However, note the **Billerbeck** reference figure 3, discloses wireless intelligent host imaging, audio and data receiver, where Data Receiver Unit 'DR' 40 (a gateway), receives a broadcast signals, converts them to a digital format and does the necessary

processing and compresses data to fit the available bandwidth of a bus to which it is communicating to Host 52 compresses data to meet available bandwidth (col. 3, line 33-col. 4, line 8 and col. 5, line 3-55).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Billerbeck into the system of Ellis as modified by Yamamoto to compressed the digital data to meet the available bandwidth on the network in order to efficiently transmit data across the LAN devices.

Claim 6 is met as previously discussed with respect to claim 2.

### ***Conclusion***

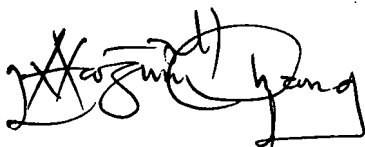
**7. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q. Shang** whose telephone number is **571-272-7355**. The examiner can normally be reached on **700am-400pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher S. Kelley** can be reached on **571-272-7331**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197 (toll-free)**. If you would like assistance from a **USPTO Customer Service Representative** or access to the automated information system, call **800-786-9199 (IN USA OR CANADA)** or **571-272-1000**.

A handwritten signature in black ink, appearing to read 'Annan Q. Shang', with a stylized, cursive script.

**Annan Q. Shang**